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Chief Executive Officer

June 17, 2009

To: Supervisor Don Knabe, Chairman
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Supervisor Zev Yaroslavsky
Supervisor Michael D. Antonovich

From: William T Fujioka
Chief Executive Officer

REPORT ON THE PROTOCOL FOR THE MANAGEMENT OF LABORATORY TESTING OF SUSPICIOUS SUBSTANCES

On May 19, 2009, your Board instructed this Office to work with the appropriate departments to establish a protocol for the management of laboratory testing of any suspicious substances, to ensure better coordination of such investigations, and report back to your Board in 14 days. Additionally, the report was to consider the role of non-County agencies in the testing process, and include the protocol for identifying a lead agency for such events, whose responsibility should, at a minimum, include: 1) establish a list of the specific testing capabilities of all agencies that may be involved in conducting lab tests; and 2) establish a protocol for the management of testing that includes a process for identifying: a) which tests are going to be conducted; b) which agency is most appropriate and capable of conducting the required tests; and c) how the findings of the lab tests are communicated back to the lead agency.

An interdepartmental workgroup was convened on Friday, May 22, 2009, to review the existing testing protocols; how lead agencies are identified; and how laboratory results are communicated back to the lead agencies; and to develop a list of laboratories (County and non-County) and their specific testing capabilities. The workgroup's findings are detailed in Attachment 1, the Protocol for the Management of Laboratory Testing of Suspicious Substances (Protocol) Report. A list of testing capabilities, by response agencies, has been compiled as requested by your Board, and is included as part of the Protocol Report (Attachment 1-A).

In summary, incidents involving a suspicious substance trigger a multi-agency response and when first responders arrive on scene the agencies function within the Incident Command System. The determination of the lead agency for the incident is based on the incident command structure and is typically a fire or police agency. For example, the Los Angeles Police Department's Hazardous Materials/Environmental Crimes Unit responds to and conducts all investigations of environmental crimes that occur within the City of Los Angeles and the Department of Public Health responds to incidents when biological agents or radiological materials are suspected within the County of Los Angeles. The standard procedure of all labs utilized in response to a suspicious substance is to provide verbal results immediately upon completion of tests to the agency that submitted the sample for testing. Formal lab results are faxed or e-mailed to the same agency. At the request of other responding agencies, lab results are also communicated from the agency that submitted the sample to the partner agencies once results are determined.

Test samples are collected, documented and processed carefully, using strict existing chain of custody protocols. The Protocol Report includes a copy of the Los Angeles County Fire Department Hazardous Materials Division – Sample Collection and Maintenance (Attachment 1-B) guidelines, as well as an excerpt of the Los Angeles County Sheriff's Department Hazardous Materials Standard Operating Guidelines (Attachment 1-C).

If you have any questions or need additional information, please contact Richard F. Martinez of this Office at (213) 974-1758 or rmartinez@ceo.lacounty.gov.

WTF:SRH:SAS
MLM:RFM:yb

Attachment

c: Executive Officer, Board of Supervisors
Agricultural Commissioner/Weights & Measures
Department of Public Health
Fire Department
Sheriff's Department

ATTACHMENT 1

PROTOCOL FOR THE MANAGEMENT OF LABORATORY TESTING OF SUSPICIOUS SUBSTANCES

1. BACKGROUND

Reports of an incident involving a suspicious substance trigger a multi-agency response within the county and when these first responders arrive on-scene the team functions within the Incident Command System (ICS). ICS, which is the standardized national on-scene, all-hazard incident management system, provides the common framework within which responders drawn from multiple agencies can effectively work together. ICS is designed to provide standardized response and operational procedures for the purposes of helping to reduce the potential for miscommunication amongst the various responders. Depending on the incident, there may be times where multiple agencies play a lead role, in which case a unified command is established. For suspicious substances, on-scene agencies typically consist of police, fire, and public health agencies.

In any response to suspicious substances, responding agencies have defined roles and responsibilities. Fire and police are typically first responders and will assess the situation to determine what other resources or responsible agencies should be called. In the case of suspicious substances, depending on the specific jurisdiction, hazardous materials experts in fire, police, and public health will work together to characterize the substance and determine if further analysis at a laboratory is necessary. If the incident involves a crime or potential terrorist involvement, law enforcement agencies will conduct evidence collection and investigations. This investigation would include the Federal Bureau of Investigation (FBI), local police or Los Angeles County Fire Health Hazardous Materials (LAFD Health HazMat) investigators. When biological agents or radiological materials are suspected, the Department of Public Health (DPH) is involved with conducting epidemiological investigations and response.

1.1. Department of Public Health

DPH responds to incidents which may pose a risk to the public's health, including biological, radiological and environmental threats. DPH works closely with other response agencies, including the Los Angeles County Sheriff's Department's Hazardous Materials Detail (LASD HazMat), Los Angeles Police Department Hazardous Materials Detail (LAPD HazMat), LAFD Health HazMat, and the FBI. DPH is involved in both the threat and risk assessment of suspicious substances and in the determination of actions to be taken to protect the public's health. These activities are governed by existing memoranda of understanding between the agencies.

1.2. Los Angeles County Fire Department Health Hazardous Mateterials

LAFD Health HazMat responds to hazardous materials incidents occurring throughout the County. Teams of hazardous materials specialists ensure that the public's health and safety, along with the environment, are protected from hazardous material releases. This is accomplished by identifying unknown substances, assessing threats, coordinating multi-agency responses and mitigating spills and releases. These teams provide remediation and oversight to ensure safe and immediate recovery of the affected properties, declaring properties safe for re-occupancy and identifying parties responsible for cleanup costs. Additionally, these teams respond to medical waste emergencies, assist law enforcement at illegal drug lab sites, respond to biological, radiological and chemical terrorist threats, investigate complaints from residential and non-industrial sources, and conduct criminal investigations of illegal storage, transportation, and/or the disposal of hazardous materials. All HazMat specialists are sworn and badged Los Angeles County Deputy Health Officers.

LAFD also provides four HazMat Fire Squads that respond to incidents involving suspicious substances and/or uncontrolled or potential releases of hazardous materials. They are part of the initial response and are responsible for control of the scene, assessment, rescue, evacuations and stabilization of the incident.

1.3. Los Angeles County Sheriff's Department

The LASD HazMat Detail responds to potential criminal and terrorism incidents suspected of involving chemical, biological, radiological, and/or nuclear weapons to detect, identify, sample, and collect hazardous evidence as well as providing exclusion zone force protection. The LASD HazMat Detail does not respond to environmental crimes or hazardous waste incidents.

2. LABORATORY AND TESTING CAPABILITIES BY AGENCY

Initial sampling may be taken to assist in identifying the material or characteristics of the material for public health and safety considerations. These samples may be used to determine the present risks, evacuation parameters, or mitigation measures necessary to bring the incident to a static situation. Substances determined in the field to be:

- Biological, or potentially biological are directed to the DPH Public Health Laboratory (PHL);

- Chemical or hazardous waste are managed by LAFD Health HazMat using a number of laboratories described in Attachment 1-A;
- Radiological substances are directed to the DPH Radiation Management Program within the Environmental Health Division.

When field screening does not rule out certain hazards and further testing is necessary, a laboratory certified with the required testing methods is identified by the lead agency. County agencies use a number of labs including those that are operated by the County DPH-PHL, County Agricultural Commissioner/Weights and Measures, Environmental Toxicology Laboratory (Ag Lab), and the Los Angeles County Sanitation Districts Laboratories (Sanitation Labs). The County labs are the facilities of choice and are primarily used by the response agencies. In the event that a County lab does not have the required testing capability, assistance is sought through a private, State or federal lab (Attachment 1-A).

2.1. Department of Public Health

DPH-PHL is a full service clinical microbiology laboratory that also performs environmental microbiological testing on potable waters from small municipal water providers, private wells, camps. This lab supports the Environmental Health Program in response to public complaints about specific restaurant establishments. Additionally, DPH-PHL performs testing of recreation waters (i.e. oceans and lakes) for total coliforms, *Escherichia coli*, and Enterococcus species as indicators of fecal contamination to determine the safety of these waters for public use.

As one of ten laboratory response network (LRN) laboratories in the state, DPH-PHL provides conventional and molecular rapid testing for bacterial biothreat agents in clinical specimens submitted by community sentinel laboratories. DPH-PHL is also certified to test for biothreat agents and toxins in environmental samples that include food and water, using nationally standardized and validated protocols established under the stewardship of the Federal Centers for Disease Control (CDC) and harmonized with the Federal Food and Drug Administration (FDA). These protocols are updated regularly and maintained on a secure website hosted by the CDC. All environmental samples received by DPH-PHL for "Multi-Agent" testing are handled in compliance with federal chain-of-custody protocols. DPH-PHL is not approved for and does not provide testing or chemical agents from environmental samples. DPH-PHL is, however, certified to perform heavy metal and cyanide metabolite testing on blood and urine specimens as part of ongoing bio-monitoring for childhood lead exposure and LRN chemical laboratory functions. The PHL is a Level 3 laboratory designated by the CDC as a LRN facility, which permits federal law enforcement agencies, such as the FBI, to also provide samples for testing.

2.2. Agricultural Commissioner/Weights and Measures

The Ag Lab is a full service laboratory offering a wide range of analytical and consulting services to industry, environmental engineers and government agencies. It is the only environmental testing laboratory in the State of California at the County government level. The Ag Lab is accredited by the California Department of Public Health to test drinking water, wastewater, hazardous waste, and agricultural products. The laboratory is also accredited for lead analyses in dust wipes, soils, and paint chips by the American Industrial Hygiene Association. The laboratory is staffed and equipped to provide comprehensive analytical testing for over 500 different substances totaling over 50,000 analyses annually including: Title 22 domestic water compliance; national pollutant discharge elimination system (NPDES) permit compliance; hazardous materials evaluation; lead testing; and pesticide residue testing.

2.3. Sanitation District

The Sanitation Labs are comprised of several different analytical groups located at ten different facilities and all operating under one centralized quality assurance program. Separate areas are specifically designated for general chemistry, organics extractions and analysis, trace metals digestion and analysis, microbiological examinations, bioassays, and research methods. The laboratories conduct hazardous waste, groundwater, wastewater, aquatic toxicity, and landfill gas test methods. The San Jose Creek laboratory also provides forensic analytical services to the Los Angeles County Environmental Crimes Strike Force and its participating enforcement agencies. Sanitation Lab groups include:

microbiology - multipurpose functions including regulatory microbial monitoring and performing fundamental and applied research;

biology - monitors impact of wastewater effluent on receiving waters; and

air and gas - analyzes a wide variety of gaseous samples for volatile organics and odor causing compounds. This group supports regulatory monitoring and important research in odor and volatile toxics control technologies. Additionally, the air group provides support for investigations of accidental or intentional discharges of potentially explosive volatile organic substances such as gasoline into the sewer system.

3. CRIMINAL COMPONENT

All responding agencies are also concerned with determining if a crime has been committed and exercise extreme caution in securing evidence. Test samples are collected, documented and processed carefully, using strict existing chain of custody protocols (Attachment 1-B and Attachment 1-C).

4. LEAD AGENCY DETERMINATION

The determination of the lead agency can be the result of which agency arrives first on scene, which has the clear responsibility based on established agency roles, or is most capable of protecting and safeguarding life for the particular incident. In general:

- DPH serves as the lead agency for suspicious substances likely to be biological or radiological in nature, or that may result in the possibility of the spread of disease and pose a significant risk to the public's health. Such circumstances may also involve law enforcement or LAFD Health Hazmat, and may require unified command.
- LAFD Health HazMat takes the lead for suspicious substances resulting from hazardous spills or waste disposal, including those resulting in environmental crimes. Lead responsibilities include sample collection and transport, lab selection, and health and safety determinations.
- LASD HazMat Detail takes the lead when a suspicious substance is suspected to be the result of criminal (non-environmental crime) or terrorist activity. Lead responsibilities include operating in the crime scene, sample/evidence collection, lab selection, and transport.
- FBI Hazardous Materials Response Team may assume the lead in situations where a federal crime or act of terrorism is suspected. In such cases, the FBI takes the lead for the crime scene, sample collection, and lab determination, which may include the use of the FBI's laboratory in Quantico, Virginia.

5. COMMUNICATING LAB RESULTS

The standard procedure of all labs utilized in response to a suspicious substance is to provide verbal results immediately upon completion of tests to the agency that submitted the sample. Formal lab results are faxed or emailed to the same agency. At the request of other responding agencies, lab results are also communicated from the agency that submitted the sample to the partner agencies once results are determined.

6. FUTURE ACTIONABLE ITEMS

To assist with future incidents, DPH will work with the other response agencies to establish and maintain a comprehensive list of all labs affiliated with County response activities. The list will identify capabilities of the labs according to hazard, and document the individual lab accreditations and certifications. This list will be compatible with state laboratory certification and will serve as a field guidance document for all response agencies to be updated as needed. In addition, DPH will work with the other response agencies to develop an interagency protocol for the management of testing that includes a process for identifying the tests to be conducted, which agency is responsible for the testing, and how the results are reported to the lead agency.

ATTACHMENT 1-A

RESPONSE AGENCY RESOURCES - LABORATORY TESTING CAPABILITIES

AGENCY	LABORATORIES	PRELIMINARY TESTING CAPABILITIES*
LACoFD – Health HazMat	**Los Angeles County Agricultural Commissioner Laboratory** 11012 Garfield Avenue South Gate, CA 90280	**General Physical** - pH, Specific Conductance, Total Dissolved Solids, Total Residual Chlorine, Color, Odor, Taste, Turbidity, Methylene Blue Active Substances, Total Suspended Solids, & Volatile Suspended Solids. **General Mineral** - Total Hardness, Calcium, Magnesium, Sodium, Potassium, Total Alkalinity, Hydroxide, Carbonate, Bicarbonate, Fluoride, Chloride, Nitrite, Nitrate, Phosphate, Sulfate, Total Phosphorus, Bromide, Perchlorate, Sulfide, Total Phenolics, Ammonia, Total Kjeldahl Nitrogen, Organic Nitrogen, Dissolved Oxygen, Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Organic Carbon, Oil & Grease, and Total Petroleum Hydrocarbons. **Inorganics** - Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Chromium, Chromium VI, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Thallium, Zinc, and Cyanide. **Microbiology** - Total and Fecal Coliform, Heterotrophic Plate Count, E-Coli, Streptococcus, & Entrococcus. **Organics Compounds** - Total Trihalomethane by Method EPA 524.2 Regulated Organic Chemicals for: Method EPA 505, Method EPA 507, Method EPA 515.3, Method EPA 531.1, Method EPA 547, Method EPA 552, Method EPA 608, Method EPA 624, and Method EPA 625. Unregulated Organic Chemicals for: Method EPA 505, Method EPA 507, Method EPA 515.3, Method EPA 531.1, Method EPA 552, Method EPA 608, Method EPA 624, and Method EPA 625. Pesticide Residue Testing for: Phophorus-Nitrogen Pesticide, Organochlorine Pesticide, Carbamate, Glyphosate, Chlorophenoxy Herbicide. **Lead Testing** - Dust Wipe, Soil, Paint Chip, Porcelain, Clay Cookware, Candy, Wrapper, Canned Food, Household items, and etc. **Soil and Hazardous Waste Testing** - Total Heavy Metals of Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium,

AGENCY	LABORATORIES	PRELIMINARY TESTING CAPABILITIES*
		Chromium, Chromium VI, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Thallium, Zinc, Cyanide, and Corrositivity (pH), Cyanide, Nitrate **Can Also Perform –** Title 22 Water Compliance NPDES Permit Compliance Fat Content Sulfite in Meat Formaldehyde in Air and Pesticide Residue in Wipe
	Los Angeles County Sanitation Laboratory 1965 Workman Mill Road, Whittier, CA 90601	Same as Ag Commissioner above plus a variety of tests for micro-organisms including select viruses, coliforms and other bacteria that are important for sewage treatment plants or situations where these are a concern. In addition, this lab performs fish toxicity tests that are used in hazardous waste determinations.
	South Coast Air Quality Management District 21865 Copley Dr Diamond Bar, CA 91765	➢ Volatile Organic Compounds (eg perchloroethylene, methylene chloride); ➢ Select Semi-Volatile Organic Compounds (eg. naphthalene, nitrobenzene, phenol); ➢ Asbestos ➢ Heavy Metals (eg. copper, cadmium, mercury, lead, arsenic, etc);
	State Department of Toxic Substances Control 1449 W. Temple St, #101 Los Angeles, CA 90026	Same as Ag Commissioner above
	Lawrence Livermore National Laboratory via FBI 7000 East Ave Livermore, CA 94550	Tabun, Sarin, Saman, GF, VX, organo-Phosphates, carbamates, Ricin, Sulfur Mustard, Nitrogen Mustard, Lewisite, phosgene oxime, cyanide compounds, arsenine, phosgene carbonyl chlor, perfluroisobutylene, perchloroethylene, methylene chloride, CS, cyanide, 3-quinuclidinyl—benzilate-Bz, phencyclidine, iIndustrial chemicals
	Bodycote Materials Testing 9240 Santa Fe Springs Rd Santa Fe Springs, CA 90670	Same as Ag Commissioner above plus a variety of biological tests for micro-organisms including bacteria
	American Scientific Laboratories 2520 N. San Fernando Road, Los Angeles, CA 90065	Same as Ag Commissioner above

AGENCY	LABORATORIES	PRELIMINARY TESTING CAPABILITIES*
LA County Dept of Public Health - Public Health Laboratory - Environmental Health	**Los Angeles County DPH Laboratory** 12750 Erickson Avenue Downey, CA 90242	Bacterial biothreat agents, Ricin, Staphylococcal Enterotooxin B, Total Coliforms, Escherichia coli, Enterococcus species, Heterotrophic plate count.
LA County Sheriff's Department - Hazardous Materials Detail	N/A	N/A – LASD's Crime Lab does not accept environmental samples

*Preliminary testing means they can run the test but may not be certified for regulatory purposes.

NOTE: Most of the laboratory capability descriptions above are for environmental samples including raw material, water or soil media. Most laboratories can do limited air samples, depending on the materials involved.

Within each chemical group, laboratories above may not be able to perform tests on all chemicals in that group which is often comprised of hundreds of individual chemicals.

	Health Hazardous Materials Division	Volume F
	Special Operations	Chapter 4
12/01/95	Sample Collection and Maintenance	Subject 8

I. INTRODUCTION

A. PURPOSE: To establish guidelines for the collection and identification of chemical evidence for further analysis, tracking, transportation, handling, storage, and disposal.

B. SCOPE: These procedures apply to all Health Hazardous Materials Division (HHMD) staff.

C. AUTHOR: The Deputy Fire Chief of the Prevention Bureau shall be responsible for the content, revision and annual review of this instruction.

D. DEFINITIONS:

1. SAMPLE: A representative part of the object or material in question. The basic objective of any sampling program is to produce a set of samples representative of the source under investigation and suitable for subsequent analysis.

2. LOG NUMBER: The number assigned to a sample for the purpose of future tracking. This number shall be the HHMD log number. Log numbers will be obtained for inspections that require sampling.

3. SAMPLE ANALYSIS AND CHAIN OF CUSTODY RECORD: A record maintained and accompanied with every sample to verify the dates and the names of the persons involved in the possession of each sample from the time of collection to the time of disposal.

4. SAMPLE AND EVIDENCE LOG: A record maintained and accompanied with every sample to record location, description and sample number. The Sample and Evidence Log is to be used as a receipt for split samples.

5. EVIDENCE COORDINATOR: The HHMD staff person assigned the responsibility to coordinate evidence collected, laboratory reports, storage and disposal of samples.

6. LABORATORY CUSTODIAN: The person in the laboratory who is responsible for receiving and removal of samples from the laboratory.

II. RESPONSIBILITY

The Chief, Health Hazardous Materials Division (HHMD), shall be responsible for enforcement of this policy.

III. POLICY

It shall be the policy of the HHMD to provide staff with clear direction on the collection and preservation of chemical evidence. Sample collection procedures described herein shall conform to the requirements of EPA Guidance document SW-846, 2nd Edition where applicable, and with the requirements of the supporting laboratories.

It shall be the policy of the HHMD to collect samples for the enforcement of the California Hazardous Waste Control Law. It is not the policy of the HHMD to collect samples for generator hazardous waste classification but samples may be taken for verification. Samples collected shall conform to the California Rules of Evidence.

IV. PROCEDURE - COLLECTION OF EVIDENCE

A. HEALTH AND SAFETY

1. All hazardous waste samples shall be collected with due consideration of health and safety concerns for the sample collector, observer, the public and environment.

2. All HHMD staff shall comply with the Department of Labor, Occupational Safety and Health Administration 29 Code of Federal Regulations, Part 1910 pertaining to Hazardous Waste Operations and Emergency Response.

3. Appropriate personal protective equipment shall be donned by all personnel.

4. A minimum of two people should be present during the collection of chemical evidence; the collector and a witness or observer. The observer functions, if needed, to witness the sample collection procedure and to assist the collector in the documentation of evidence collected.

5. A verbal or written sampling plan shall be developed prior to the collection of chemical evidence. The plan should include the objectives for sampling, selection of sample locations, the types and amounts of samples to be collected, the number of samples to be collected, frequency of sampling, and personal protective equipment required based on a Hazard Waste Operations Emergency Response (Hazwopper).

B. OBTAINING SAMPLES

1. Clean sampling instruments and containers shall be used for the collection of each sample. All samples are to be packaged in compatible containers with tight fitting lids. When possible, Teflon liners should be used in jar lids. Sample containers should be encased in parafilm wax and sealed with evidence tape.

2. A person who has sample custody must ensure that all samples are properly labelled. Labels should be affixed to the sample container prior to, or at the time of sampling and should be completely filled out at the time of collection. The label should have the following information:

   a. Sample field identification number.
   b. Name or initials of the collector.
   c. Date and time of collection.
   d. Place of collection.
   e. Description of the sample.

3. A Sample Field Identification number shall be assigned to all samples. The sample number shall be created by the collector in the following format: IIMMDDYY-XA
   a. I = collectors first and last initials
   b. M = month sample taken (use two digits, eg. January is 01)
   c. D = day sample taken (use two digits, eg. the first is 01)
   d. Y = year sample taken (use two digits, eg. 93)
   e. X = sample number
   f. A = split sample number (use letters, eg. A or B)

   For example, John Smith collected three samples on January 1, 1993. The Sample number would read:

JS010193-01
JS010193-02
JS010193-03

If split samples were taken then the sample identification number would be:

JS010193-01A
JS010193-01B

4. When possible all samples should be field tested to determine a preliminary hazard class. The hazard categorization (Haz Cat) findings should be recorded on the sample label, Sample and Evidence Log, and Sample Analysis and Chain of Custody forms.

5. The sample collector is responsible for the care and custody of the samples until they are properly transferred to the laboratory. The sample collector must ensure that each container is in his physical possession or in his view at all times, or stored in a locked area where no one can tamper with it. Samples should be handled by the minimum number of persons.

C. DOCUMENTATION

1. A completed Sample Analysis and Chain-of-Custody Record must accompany the samples. The forms have discrete formats and contents tailored to suit the needs of the HHMD and laboratory. A copy of the completed Sample Analysis and Chain-of-Custody Form shall be forwarded to the Evidence Coordinator at the time samples are submitted to the laboratory. See attached example of the Sample Analysis and Chain-of-Custody Record form with instruction contained on the reverse.

2. The sample collector is responsible for the accurate completion of the Sample and Evidence Log for each sample collected. A completed Sample and Evidence Log must accompany the samples. The Sample and Evidence Log is to be used as a receipt for evidence seized and shall be forwarded to the Evidence Coordinator at the time samples are submitted to the laboratory. See attached example of the Sample and Evidence log form with instruction contained on the reverse.

3. A map/diagram should be prepared to show sample locations. Landmarks such as buildings, tanks, fences, etc. should be included on the diagram.

4. Photographs

   a. All court samples shall be photographed at the sample location. Photographs should depict the conditions at the time of sampling and shall be handled as evidence.

   b. Photographs should include identified sources of samples (e.g. drums), close up photographs of samples, distant photographs of samples, group and single photographs of samples, photographs of the general vicinity and photographs of the surrounding area.

   c. The use of a chalk board or other device is recommended to provide a description of what the photograph depicts.

   d. All photographs and negatives should be labeled with the following:

      (1) Name/DBA, address, city, zip
      (2) Name of the photographer.
      (3) Date of photograph.
      (4) Description of photograph.

D. SAMPLE PRESERVATION

1. All samples should be preserved in order to maintain sample integrity. Attention must be given to the use of the proper container and refrigeration. The following are examples of typical sample degradation problems to avoid:

   a. Cyanide and sulfides will oxidize or evolve as gas.
   b. pH levels will change.
   c. Hexavalent chromium will reduce to trivalent chromium.
   d. Sample containers may react with contents
   e. Volatile liquids will vaporize.

2. Split samples

   a. Split samples shall be offered to the identified responsible parties.

b. A receipt for samples must be obtained prior to release of split samples to responsible parties. The receipt for samples will be recorded on the Sample and Evidence Log. The receiving party should identify themselves by name, position/title and photo identification. The Sample Field Identification number being provided will be recorded. All information is to be recorded on the Sample and Evidence Log.

IV. PROCEDURE - TRANSPORTATION OF EVIDENCE

A. All chemical samples shall be transported with due consideration for the health and safety of the transporter and the public.

B. Hazardous waste samples shall be transported as soon as possible to the laboratory in County owned vehicles.

C. No samples are to be transported in the driver/passenger breathing space unless the samples are stored in air tight containers.

D. A completed Sample Analysis and Chain-of-Custody Record must accompany the samples. It is the responsibility of the sample transporter to maintain chain-of-custody of all samples entrusted to him/her and to indicate the possession on the chain-of-custody forms.

E. All sample containers must be clean, labeled and sealed with evidence tape.

IV. PROCEDURE - ANALYSIS OF EVIDENCE

A. Only authorized laboratories shall be used for sample analysis (see table 1).

B. All samples shall be considered non-emergency and will be submitted for routine analysis only.

C. If emergency analysis (24 hour turn around) is necessary, it must have supervisory approval prior to analysis. The sample collector shall place a check in the *stat box* at the upper right hand corner of the Sample and Chain of Custody Form when ever an emergency analysis is requested.

D. A completed Sample Analysis and Chain-of-Custody Record must accompany the samples to the laboratories who will maintain chain-of-custody and provide a

copy to the sample transporter. A copy of the completed Sample Analysis and Chain-of-Custody Form shall be forwarded to the Sample Collector and Evidence Coordinator at the time samples are submitted to the laboratory.

E. A laboratory log number will be assigned to each sample at the sample receiving station. The laboratory number will be transcribed onto the Sample Analysis and Chain-of-Custody Record and on the sample containers.

F. Incoming samples will be received only by the laboratory custodian or his designee, who will indicate receipt by signing the Chain-of-Custody Record sheet accompanying the samples and then retain the sheet as a permanent record. A copy of the record will be provided to the person delivering the samples with the lab log number.

G. The sample collector is responsible to specify the nature of the analysis requested and shall be the point of contact for the laboratory when questions about the samples arise and to authorize additional analysis when needed.

H. When analysis is completed, the laboratory shall mail the final analysis report to the Administration/Planning Section Manager who will transmit the analysis report to the Evidence Coordinator who will provide copies to the sample collector.

I. When analysis is completed, the sample collector must notify the Evidence Coordinator of the disposition of the samples. The following dispositions must be made within 15 days of receipt of laboratory report.

1. Samples are to be disposed (no further action necessary).
2. Samples are to be held at laboratory (for further analysis).
3. Samples must be saved as evidence (to be transferred to the evidence locker).

J. Samples will not be stored at the laboratory longer than 30 days after laboratory report is completed. All samples will be disposed after 30 days unless the Evidence Coordinator is notified otherwise.

K. All bills for service shall be mailed by the laboratory, directly to the Los Angeles County Fire Department, Fiscal Management Division, 1320 North Eastern Avenue, Los Angeles CA 90063, Attention: Expenditure Management. Sample Collectors shall not accept a bill for service from any vendor.

IV. PROCEDURE - STORAGE OF EVIDENCE

A. A completed Sample Analysis and Chain-of-Custody Record must accompany the samples. It is the responsibility of the Evidence Coordinator to maintain the chain-of-custody record for all samples stored in the evidence locker.

B. The Evidence Coordinator will be responsible for the transportation of samples from the laboratory to the evidence locker. Evidence will be transferred after the sample collector requests the transportation of samples from the laboratory to the evidence locker.

C. All hazardous waste samples shall be stored with due consideration of health and safety concerns for staff, the public and the environment.

D. All HHMD staff shall comply with the Department of Labor Occupational Safety and Health Administration 29 Code of Federal Regulations, Part 1910 pertaining to Hazardous Waste Operations and Emergency Response.

E. Appropriate personal protective equipment shall be donned by all personnel.

F. The evidence storage locker will be inspected monthly by the Evidence Coordinator. The locker is to be inspected for sudden and non-sudden releases. Prevention equipment will also be inspected including spill containment, fire extinguishing systems, eye wash, shower, security, ventilation, lighting, refrigeration and air conditioner. All releases and failures in safety equipment must be reported to the Special Operations Manager and corrected immediately.

G. Only the Evidence Coordinator or his designee is permitted unaccompanied at the locker in order to maintain chain-of-custody. All entries to the locker will be recorded in a journal at the locker.

H. All samples awaiting legal disposition will be stored on shelves in a safe manner. After a determination has been made that the samples are no longer needed for court, the sample is to be treated as a hazardous waste. All hazardous waste will be handled in accordance with all state and federal laws.

I. The Evidence Coordinator is responsible for preparing all hazardous waste associated with the evidence locker for disposal.

IV. PROCEDURE - DISPOSAL OF EVIDENCE

A. It will be the responsibility of the Evidence Coordinator to make all arrangements for disposal of hazardous waste associated with the collection of chemical evidence.

B. All hazardous waste will be disposed in accordance with state/federal laws.

C. The Evidence Coordinator is responsible to maintain all necessary records associated with the disposal of hazardous waste. This includes meeting all necessary reporting requirements.

VF-C4-08

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
HAZARDOUS MATERIALS STANDARD OPERATING GUIDELINES
Excerpt

Biological Agents

For sampling and evidence collection procedures of biological agents, the HazMat Detail utilizes the Federal Bureau of Investigation, Hazardous Materials Response Unit's "Biological Sampling Procedures." All evidence samples will be taken prior to field screening. Any sample thought to be biological in nature will be immediately transported to the Los Angeles County Public Health Lab (Personnel will ensure that the lab employee receiving the sample signs the "Chain of Custody Form" and receives a copy of our "Sampling Form"). Further, Detail personnel will allow the Public Health lab personnel to make a copy of our form and obtain a copy of the Public Health lab's chain of custody form. Both forms will then be given to the Team Sergeant for filing.

Chemical Agents

For sampling and evidence collection procedures of chemical agents, the HazMat Detail utilizes the Federal Bureau of Investigation, Hazardous Materials Response Unit's "Chemical Sampling Procedures." All evidence samples will be taken prior to field screening. Any chemical thought to be hazardous will be transported by either the Federal Bureau of Investigation or the Los Angeles County Fire Department's Health HazMat unit to a lab of their choosing.

Radiological Agents

For all incidents involving the presence of radioactive material, Detail personnel will notify the Los Angeles County Department of Public Health's Radiation Management. Either Public Health's Radiation Management or the Federal Bureau of Investigation will take possession of the source at the scene. Personnel shall not transport radiation sources unless safe and requested to do so by either of these two agencies.